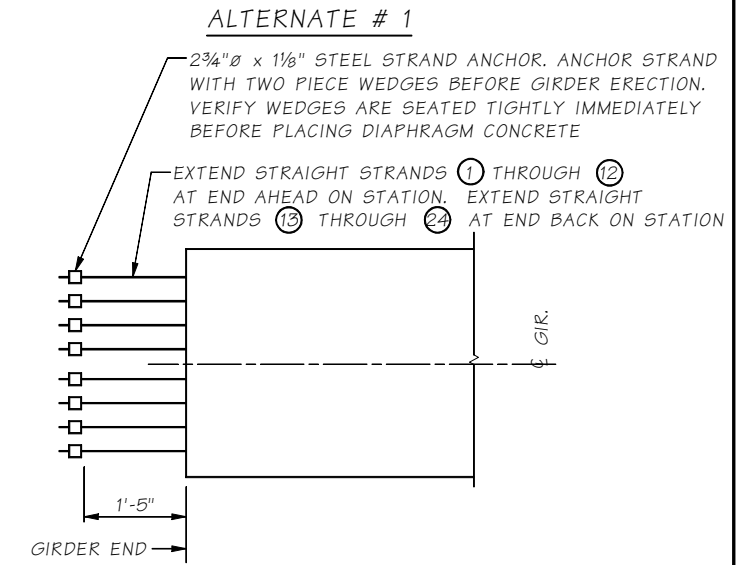
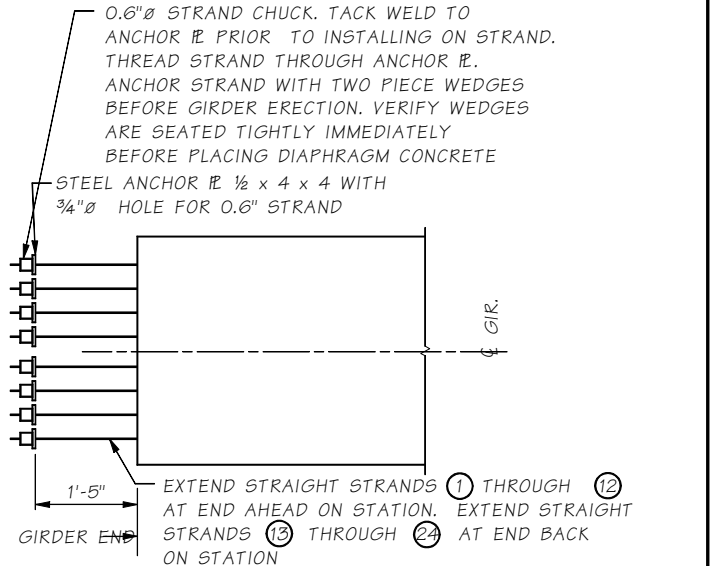
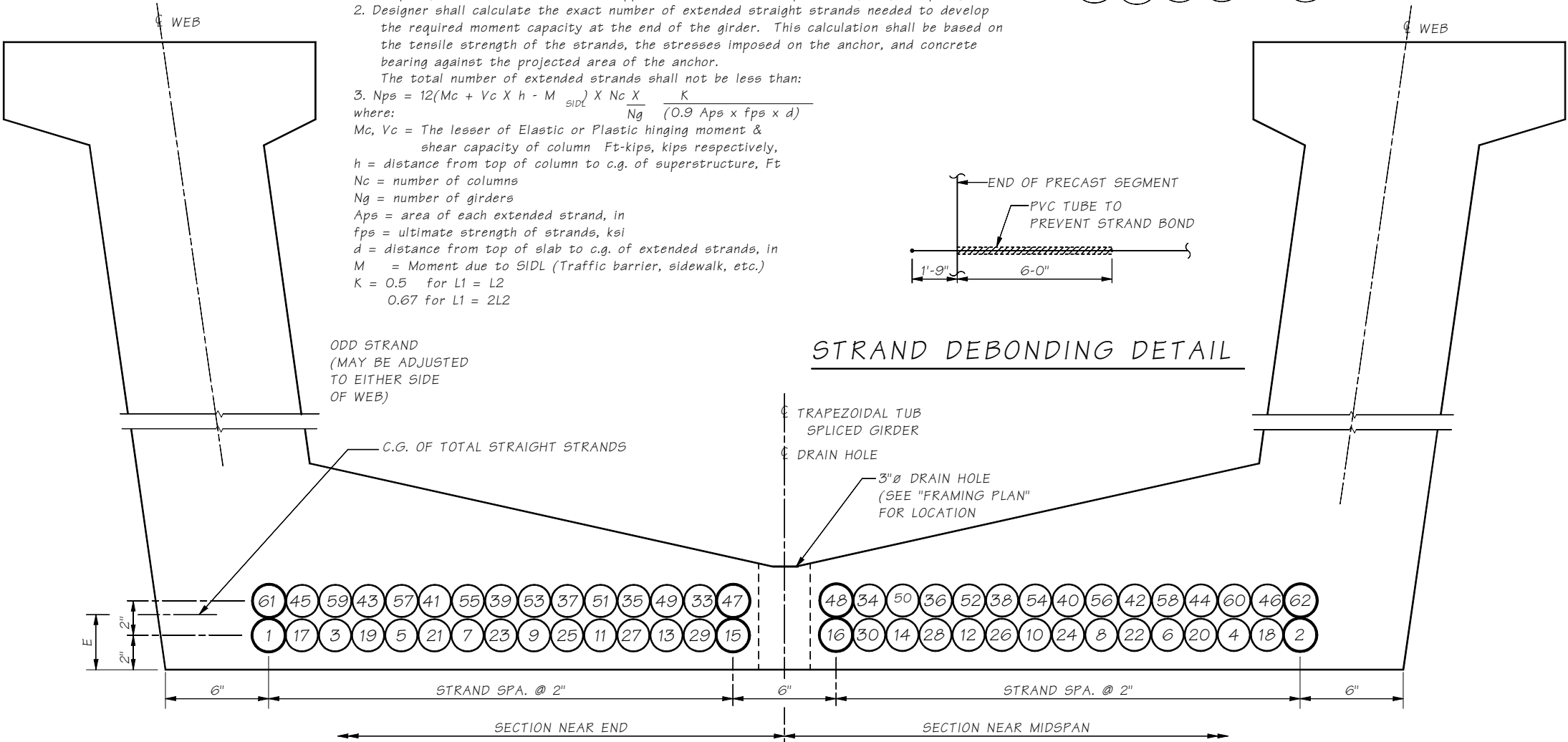


DIMENSION "A" AT E BEARINGS = SEE "A" DIMENSION TABLE																																					
SPAN	GIRDER	END SEGMENT 1											MID-SEGMENT										END SEGMENT 2														
		MINIMUM CONCRETE COMPR. STRENGTH		END 1 TYPE	END 2 TYPE	L	θ <sub>1</sub> (DEG.)	θ <sub>2</sub> (DEG.)	P <sub>1</sub>	PLAN LENGTH (ALONG E GIRDER GRADE)	STRAIGHT		C.G. STRANDS	L <sub>d</sub>	END 1 TYPE	END 2 TYPE	L	θ <sub>1</sub> (DEG.)	θ <sub>2</sub> (DEG.)	PLAN LENGTH (ALONG E GIRDER GRADE)	STRAIGHT		C.G. STRANDS	L <sub>d</sub>	END 1 TYPE	END 2 TYPE	L	θ <sub>1</sub> (DEG.)	θ <sub>2</sub> (DEG.)	P <sub>2</sub>	PLAN LENGTH (ALONG E GIRDER GRADE)	STRAIGHT		C.G. STRANDS	L <sub>d</sub>		
		@ FINAL F'C (KSI)	@ RELEASE F'CI (KSI)								NO. OF STRANDS	JACKING FORCE (KIPS)									NO. OF STRANDS	JACKING FORCE (KIPS)										NO. OF STRANDS	JACKING FORCE (KIPS)				
																																				E	E

NOTES TO DESIGNER:

1. This strand extension detail is to be used for continuous spans at moment resisting diaphragms only. This detail is not applicable to continuous spans using hinge diaphragms.
2. Designer shall calculate the exact number of extended straight strands needed to develop the required moment capacity at the end of the girder. This calculation shall be based on the tensile strength of the strands, the stresses imposed on the anchor, and concrete bearing against the projected area of the anchor.  
The total number of extended strands shall not be less than:
3. 
$$Nps = \frac{12(Mc + Vc \times h - M_{SIDL}) \times Nc \times K}{Ng \times (0.9 \times Aps \times fps \times d)}$$
where:  
Mc, Vc = The lesser of Elastic or Plastic hinging moment & shear capacity of column Ft-kips, kips respectively,  
h = distance from top of column to c.g. of superstructure, Ft  
Nc = number of columns  
Ng = number of girders  
Aps = area of each extended strand, in<sup>2</sup>  
fps = ultimate strength of strands, ksi  
d = distance from top of slab to c.g. of extended strands, in  
M = Moment due to SIDL (Traffic barrier, sidewalk, etc.)  
K = 0.5 for L1 = L2  
0.67 for L1 = 2L2

NOTE:  
Dimensions shall be shown in Imperial units to the nearest 1/8th inch.



ALTERNATE # 2  
STRAND EXTENSION DETAIL  
FOR END TYPE D  
NOT ALL EXTENDED STRANDS ARE SHOWN

BRIDGE SHEET NO.  
STANDARD  
PRESTRESSED CONCRETE GIRDERS  
TRAPEZOIDAL TUB S-I-P DECK PANEL  
SPliced GIRDER - DETAILS 5 OF 5

Bridge Design Engr.	M:\STANDARDS\Girders\PT Trapezoidal Tubs\SIP PT TRAPEZOIDAL TUB 5.MAN	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APPD		

BRIDGE  
AND  
STRUCTURES  
OFFICE

